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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/821,231

04/08/2004

Dongmao Zhang

12264/017

9405

27879 7590 02/09/2007  
INDIANAPOLIS OFFICE 27879  
BRINKS HOFER GILSON & LIONE  
ONE INDIANA SQUARE, SUITE 1600  
INDIANAPOLIS, IN 46204-2033

EXAMINER

EVANS, FANNIE L

ART UNIT

PAPER NUMBER

2877

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

02/09/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/821,231

Applicant(s)

ZHANG ET AL.

Examiner

F. L. Evans

Art Unit

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 November 2006.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-39 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☒ Claim(s) 22-27 and 35-39 is/are allowed.  
6) ☒ Claim(s) 1-16, 18-21 and 28-34 is/are rejected.  
7) ☒ Claim(s) 17 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on November 13, 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *The Drawings*

Receipt is acknowledged of the new sheet of drawings filed on November 13, 2006. The drawings are acceptable.

### *Claim Rejections - 35 USC § 101*

35 U.S.C. § 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-16, 18-21 and 28-34 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter.

The claims are directed to a judicial exception, an abstract idea; as such, pursuant to the Interim Guidelines on Patent Eligible Subject Matter (MPEP 2106), the claims must have either physical transformation and/or a useful, concrete and tangible result. The claims fail to include transformation from one physical state to another. Although, the claims appear useful and concrete, there does not appear to be a tangible result claimed. Merely detecting (line 15 of independent claim 1, lines 1-3 of dependent claim 20 and line 16 of independent claim 28); comparing (lines 2 and 3 of dependent claim 7 and lines 1-3 of dependent claim 31); processing (lines 1 and 2 of dependent claim 15); classifying (lines 1 and 2 of dependent claim 16 and lines 2 and 3 of claim 32); normalizing (lines 1 and 2 of claim 18); subtracting (lines 1-3 of claim 19); and quantifying (lines 1-3 of dependent claim 34) would not appear to be sufficient to constitute a **tangible result**, since the outcome of the detecting, comparing, processing, classifying, normalizing, subtracting and quantifying steps has not been used in a disclosed practical application nor made available in such a manner that it's usefulness in a disclosed practical application can be realized. As such, the subject matter of the claims is not patent eligible.

Attention is directed to section IV. of MPEP 2106, "DETERMINE WHETHER THE CLAIMED INVENTION COMPLIES WITH 35 U.S.C. SEC. 101." In part C.2.(2), "Practical Application That Produces a Useful, Concrete, and Tangible Result", the second and third sentences state "If USPTO personnel determine that the claim does not entail the transformation of an article, then USPTO personnel shall review the claim to determine if it produces a useful, tangible, and concrete result. In making this determination, the focus is not on whether the steps taken to achieve a particular result are useful, tangible, and concrete, but rather on whether the final result achieved by the claimed invention is "useful, tangible, and concrete.""

The dependent claims not addressed above do not appear to add any real world application required by MPEP 2106.

*Allowable Subject Matter*

Claims 22-27 and 35-39 are allowed over the prior art of record.

Claim 17 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 1-16, 18-21 and 28-34 would be allowable if rewritten or amended to overcome the rejection under 35 U.S.C. § 101 set forth in this Office action.

As to independent claims 1, 22, 28 and 35 the prior art of record, taken alone or in combination, fails to disclose or render obvious the claimed invention for the reasons set forth on pages 4 and 5 of the previous Office action.

As to dependent claim 17, the step of plotting is considered a tangible result.

*Response to Arguments*

Applicant's arguments filed November 13, 2006 have been fully considered but they are not persuasive.

Art Unit: 2877

Contrary to applicant's assertion in the first paragraph on page 7 of the response filed on November 13, 2006, the invention set forth in claims 1-16, 18-21 and 28-34 is directed to a 35 U.S.C. § 101 judicial exception, an abstract idea.

In the second sentence of the first paragraph on page 7 of the response, applicant states that the claimed process includes physical steps that manipulate material items and does not come within any proscribed categories such as a mental process. With respect to this sentence, applicant's attention is directed to section IV. of MPEP 2106, "DETERMINE WHETHER THE CLAIMED INVENTION COMPLIES WITH 35 U.S.C. SEC. 101." Particular attention is directed to the second and third sentences in part C.2.(2), "Practical Application That Produces a Useful, Concrete, and Tangible Result." The focus of the determination is not on the physical steps that manipulate material items in the process of claims 1-16, 18-21 and 28-34, but rather on whether the **final result** achieved by the claimed invention is useful, tangible and concrete.

The **final result** of detecting (line 15 of independent claim 1, lines 1-3 of dependent claim 20 and line 16 of independent claim 28); comparing (lines 2 and 3 of dependent claim 7 and lines 1-3 of dependent claim 31); processing (lines 1 and 2 of dependent claim 15); classifying (lines 1 and 2 of dependent claim 16 and lines 2 and 3 of claim 32); normalizing (lines 1 and 2 of claim 18); subtracting (lines 1-3 of claim 19); and quantifying (lines 1-3 of dependent claim 34) is merely data manipulation which is not a tangible (real world) result. As such, the subject matter of the claims is not patent eligible.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR § 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH**

Art Unit: 2877


shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR § 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

*Fax/Telephone Numbers*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to the examiner whose telephone number is (571) 272-2414.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr. can be reached on (571) 272-2800 ext 77. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
**F. L. EVANS**  
**PRIMARY EXAMINER**  
**ART UNIT 2877**

file

January 31, 2007